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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PARKER, FREDERICK JOHN

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,648

Applicant(s)

PEYTOUR, NORBERT

Examiner

Frederick J. Parker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-52 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 27-52 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 112

The rewritten claims in response to the 35 USC 112 rejections of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the rejections.

Claim Rejections - 35 USC § 102

1. Claims 1-26 have been cancelled and replaced by claims 27-52, which are rejected for essentially the same reasons as in the previous Office Action since the claims follow similar subject matter. Hence rejections of claims 1-26 are withdrawn and replaced by the following rejections.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 27,28,32,35-41,45,48-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Titterington US 4992304.

Titterington discloses a method of applying printing (which may be in the form of an inscription) in raised relief to substrates made of plastic (col. 8, lines 52-65) comprising: depositing phase change ink, which is a plastic material having variable viscosity (depending on temperature, since temperature and viscosity are cause-effective variables, higher temperatures causing decreased viscosity and vice-versa); and solidifying the coating material on the substrate (col. 1, lines 11-17 and col. 6, lines 59-64). Solidification inherently reduces temperature of the ink and substrate, with cooling to ambient necessarily occurring as the coated substrate leaves the printer, per claims 38 and 51. Titterington teaches that four different inks are deposited at 300

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drops/inch by a drop-on-demand ink jet printer driven by a piezoelectric ceramic disc operating at 10,000 pulse/second and at a temperature of 150 C (col. 10, lines 1-6). Ink jet printers utilize ink ejectors which inherently comprise a nozzle tube (US 4897673, col. 1, is cited expressly as a teaching reference to demonstrate inherency of a nozzle tube for an ink jet printer) per claims 36,49. Titterington also teaches that substrate may comprise an adhesion promoter layer between the ink image layer and the substrate to "impart a high degree of affinity for bonding between the ink image layer to the impermeable substrate" (col. 9, lines 10-33). For the purpose of rejection, the substrate is considered to be the plastic substrate and plastic adhesion promoter layer thereon. Therefore, Titterington teaches depositing the printing ink in a single operation at a sufficient temperature to ensure a physical-chemical bond with the substrate.

The piezoelectric ink jet printer of Titterington which prints 300 drops/inch and has a plurality of ink reservoirs/tubes necessarily includes: controlling a number of vibrating elements in the form of tubes supplied with fluidized plastic material from a reservoir; controlling and synchronizing the vibration of the tubes at frequencies to produce the deposition of drops of fluidized plastic material at the places necessary for a number of deposited drops to form a raised ink area; controllably/ in registration passing the substrates in front of print heads; controlling the positioning of the drops in a direction transverse to that of the movement of the substrates; and controlling the ejection duration. (It is noted that Figures 1 and 2 illustrate that the solidified ink of Titterington forms a raised area compared to the surface of the substrate.)

Claim Rejections - 35 USC § 103

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims ~~27~~-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curiel (US 6,655,598) in view of Titterington.

Curiel is cited for its teaching of a method of creating a tamper resistant informational article comprising plastic, such as for use as an identification card/badge or smart card or other informational card having magnetic media therein (col. 5, lines 43-54). Curiel also teaches that bar codes may also be applied in the informational articles of its invention (col. 7,46-48). Curiel discloses one step of its detailed method of printing information on a substrate, which may be a resinous plastic film such as polyester (col. 7, lines 60-62), by ink jet printing (col. 12, lines 41-49 and col. 13, lines 53-61). Curiel lacks a teaching of the specific ink jet printing process used, or the types of inks used. One skilled in the art would have been motivated to look to the prior art for a conventional means of ink jet printing on a resinous plastic substrate such as polyester. Titterington discloses such a method, and is applied for the reasons discussed above in the previous section above. It would have been obvious for one having ordinary skill in the art to have used the piezoelectric ink jet printing method of Titterington to apply information on plastic lens substrate in the method of Curiel since Titterington teaches achieving excellent adhesion of the printing to the plastic substrate and since Curiel is not limited to particular printing methods or materials.

Response to Arguments

The Examiner has considered Applicants amendments and arguments, as well as the previous Examiner's Office Action and positions. All previous claims are cancelled and replaced by new claims 27-52, some of which parallel previous claims in one form or another.

Applicants argue that the instant inventions "sets forth a method of applying a relief inscription to a substrate made of plastic by ejecting drops of fluidized plastic from ejector nozzles". The Examiner maintains this is exactly what Titterington does: ink jet printing (comprising ejector nozzles) droplets of variable viscosity inks onto plastic substrates to form raised ink depositions, as explained above. The alleged difference in problems and solutions is not a convincing argument because (1) the outcomes are the same, and (2) Applicants' allegation that their method is for relief patterns for plastic cards is not commensurate with scope of independent claims, where limitations to plastic cards are absent: the claims merely require "substrates made of plastic" which is fully met by Titterington. The argument regarding relief is respectfully incorrect: relief is clearly demonstrated in figures 1-2 of Titterington. Variable density inks are taught because they are heated, and heat alters viscosity, as previously discussed.

Applicants argument that the instant claims require a "positive cooling of the material" is unfounded. Cooling occurs inherently upon solidification, and further heat is inherently lost (cooling occurs) as the warmed inked substrates leave the coating station (that is, at a remote position). Thus the reference properly and completely meets the limitation which simply requires cooling without specifying how cooling must occur.

The rejections utilizing Spehrley are moot because this Examiner found it unnecessary to utilize that reference in the new rejections of newly presented claims 27-52. Arguments pertinent

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to Curiel simply refer back to the same alleged deficiencies of Titterington, which are discussed and refuted above, and need not be repeated for brevity. Those arguments were not persuasive, and hence the rejections cited are proper.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

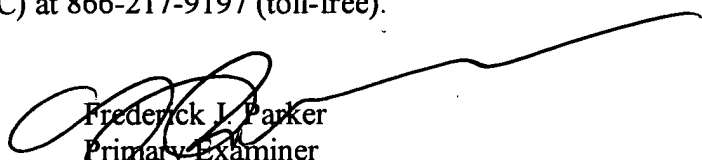
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meeks Timothy can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frederick J. Parker
Primary Examiner
Art Unit 1762

fjp